5. . UEBER ELEKTRISCHE REIZUNG DER ERSTEN DORSALWURZEL BEIM MENSCHEN (Electrical Stimulation of the First Dorsal Root). H. Oppenheim. Berlin klin. Wochenschrift, 33, 1896, p. 753.

In order to decide the question whether the oculo-pupillar fibres are in part derived from the first dorsal root or not, the author made use of a gunshot wound case in which the spinal canal was opened, exposing from the first to the fourth dorsal segment. Electrical irritation of the second dorsal root was negative; while immediately after irritaton of the first, dilatation to a marked degree followed. This dilatation disappeared on removing the electrode. The author concludes, from his experiments, that the dilator pupillaris muscles receive their nerve supply from the first dorsal. JELLIFFE.

6. COMPARATIVE EFFECTS OF DIFFERENT ALCOHOLIC DRINKS ON MAN (Lanceraux.) Bull. Med. de Paris: 10, 1896, p. 979.

Lanceraux has investigated the changes taking place in the nervous system, due to abuse of different alcoholic drinks, wine, beer, absinthe, essences, etc.

In excessive use of alcoholic drinks of high percentage of alcohol, the tactile and thermal sensibilities do not seem to be greatly altered, while sensibility to pain seems exaggerated. In those that use absinthe and similar drinks to excess, the plantar reflexes are increased, light tickling causing movement, while slight stroking of the knees, legs, or abdomen causes pain severe enough to cause the patient to complain.

Similar results, although less marked, are to be observed in the upper extremities. In wine-drinkers, this sensitiveness of the skin is much less in the lower exremities; above there may be a zone of hyperesthesia; while still higher in the body, normal skin sensation is the rule. Psychical symptoms by absinthe drinkers are stated to be fewer than is generally supposed and taught in the ordinary textbooks. Wine and alcohol drinkers are prone to attacks of acute delirium, while in those that drink alcoholic essences, forms of dementia are more liable to follow. JELLIFFE.

PATHOLOGY.

7. BEITRAEGE ZUR KENNTNISS DER MULTIPLEN, ALLGEMEINEN NEUROM (Contributions to a Knowledge of General Multiple Neuromata.) Karl Petrén. Sonderabdruck aus dem Nordiskt Medicinskt Arkiv.

In this brochure the author presents an exhaustive study of a well-observed case of multiple general neuroma. The histological work was done at the Pathological Institute of the University of Lund. A complete review of the literature is given. The patient was a tailor, aged thirty-two. There was a high degree of neuro-pathological hereditary taint, but not as is generally the case, of a type similar to the disease. The patient's father was a man of good intelligence, but of violent temper, and immoderately addicted to alcohol. A paternal uncle was also intemperate. The mother was eccentric and of low degree of intelligence. One of her sisters was insane. A brother and sister of the patient was feeble-minded, and another brother actually insane. A maternal aunt and cousin were at times under treatment for mental disease. The tumors were very numerous and widely distributed over the trunk and limbs, corresponding to the distribution of the nerves affected. They varied in size from a pea to a pigeon's egg and could be distinctly felt under the skin. Where multiple neuromata do not undergo sarcomatous degeneration, there have generally been no special nerve symptoms observed. Here, however, these tumors caused widespread motor and sensory disturbances of the same kind as are occasioned by a very chronic and benign neuritis. Slight ptosis, nystagmus, inequality of the pupils, sluggish reaction for light and accommodation, diminished tactile sensibility, and temperature sense were observed. There was a considerable paresis of the left arm, and the reflexes of the arm were distinctly increased. Motion both in the upper and lower extremities was distinctly ataxic, and the "muscle sense" showed considerable diminution. Romberg's symptom was present. Patellar and plantar reflexes were increased. The expression of his face and conversation evidenced distinct mental impairment.

In the case here presented there was in all probability compression of the spinal cord due to tumor formation on the roots of origin of the spinal nerves. Cases of such compression have been observed by Sibley, Riesenfeldt, Gerhardt and Sieveking. The oculo-pupillary disturbances have been observed but twice before and have been reported by Riesenfeldt and Herczel. Their cause is not known with certainty. The clinical picture corresponds very closely to that occurring in neuritis of the Dejerine type, except that in the latter the symptoms are all more strongly developed.

The most important feature of the microscopical examination of the excised neuromata was the demonstration of a new formation of non-medullated nerve fibres which the author has shown for the first time. It is in entire harmony with the clinical symptoms that a considerable destruction of nerve fibres should be found only in those cases which undergo sarcomatous degeneration. In other cases there are sometimes no changes whatever in the nerve fibres, sometimes there are slowly developed alterations in these elements, generally a pressure atrophy, which is also accompanied by a diminution in their number. In the cases here reported there was a very slow but undoubted destruction of nerve fibres which corresponded fairly to the clinical manifestations. In a second case of multiple neuroma the author succeeded in demonstrating in all probability a new formation of medullated nerve fibres. The appearances corresponded to those which are observed in the proximal stump of a divided nerve when regeneration occurs. It is not possible to say whether or not this reproduction of nerve fibres is throughout more extensive than is ever the case in neuromata and can even go on to complete disappearance. In the former the place of the nerve fibres is taken by a fibrous connective tissue, and in neuromata one often finds almost the same form of connective tissue surrounding the bundles of nerve fibres which pass through the centre of the tumor. In the latter, however, there is also diffuse connective tissue that forms the principal mass of the tumors. In multiple neuroma as in the above-mentioned neuritis there is often a neuropathic taint which in both may assume the form of a similar heredity. Both diseases are generally congenital or appear in childhood and are to be attributed to faulty development. In both this probably consists in an increased energy of growth of the connective tissue of the nerves, or in a relative diminution of the same for the nerve fibres. As regards neuromata, one can agree with Goldman that this faulty development is to be regarded as retarded growth, that is, a persistence of the connective tissue of the nerves in the embryonal stage.

General multiple neuroma and neuritis of the Dejerine type are to be considered in all probability as related diseases. When one compares these two diseases which are produced by increase in the connective tissue of the nerves, the thought occurs that the development of tumors may be regarded as a safety valve for the exuberance of connective tissue, and may indeed be a conservative process which in certain cases protects with varying effectiveness the nerve fibres from destruction. In neuritis of the Dejerine type is to found a premonition even if a slight one, of tumor formation. SHIVELY.

8. LESIONS DE LA MOELLE EPINIERE DANS UN CAS D' AMPUTATION GONGENITALE DES DOIGTS. (Lesions of the Spinal Cord in a Case of Congenital Amputation of the Fingers.) Longues et Marinesco La Presse Medicale, No. 45, 1897.

After giving a short description of a case of congenital absence of the first and middle finger, with rudimentary ring finger and deformity of thumb and little finger of the right hand in a woman who died at 63 of a cancer, the authors give the result of the histological examination of the spinal cord from that patient. The cervical cord from the first dorsal segment to the medulla was examined. There was diminution in size of the right half of the cord, most marked about the eighth cervical and first dorsal segments, and progressively less marked towards the higher level. On the right side both anterior and posterior roots were diminished in volume, and the reflexo-motor collaterals which traverse the posterior horn to go to the motor cells of the anterior horn, as well as the collaterals going to cells of the posterior horn were reduced in number, the change being most pronounced in the lowest segments, but visible as high as the fifth cervical. In the right anterior horn the changes were quite marked. It was smaller and paler than the left, and its cells showed changes; the antero-internal group being well preserved, the postero-lateral group partly atrophied, while the median group had disappeared entirely. The cells of the gray matter between the anterior and posterior horns were reduced in numbers. Above the fifth cervical these changes were no longer visible. There was an atrophy of the column of Burdach, most marked below, but traceable up to the nuclei in the medulla. The columns of Goll showed degeneration on both sides, but the authors do not think this explained by the lesion of the hand. The paper closes with a consideration of the origin of the disease process, which the authors conclude to be exogenous and secondary to the amputation in utero of the fingers. The changes found confirm the views with regard to the distribution of the collaterals of the posterior root fibres, held by Kolliker, Ramon y Cajal and others. C. L. ALLEN.

9. UEBER VERAENDERUNGEN DES MENSCHLICHEN RUCKENMARKS NACH WEGFALL GROSSERER GLIEDMAASEN. (Concerning Changes in the Human Spinal Cord after Removal of Large Portions of the Limbs.) By E. Flatau. Deutsche med. Wochenschrift, 23, 1897, p. 278.

Flatau had the opportunity of examining the spinal cord in two cases a short time after amputation had been performed. He found that the cells in the parts corresponding to the amputated limbs, when stained by the method of Nissl, were enlarged and tubular, and that the protoplasmic processes were decreased in number. The chromophilic elements had undergone a gradual change, and the nucleus in some cells was excentrically situated. These findings correspond with those obtained experimentally. He states an important fact, acknowledged by many, viz., that it is possible to detect not only alteration of the cell from the action of different substances, but also differences in the action of the various substances on one and the same cell species. He found both the anterior and the posterior roots degenerated after amputation. [There is a suggestion in this statement in regard to the possibility of a peripheral origin of tabes.] SPILLER.